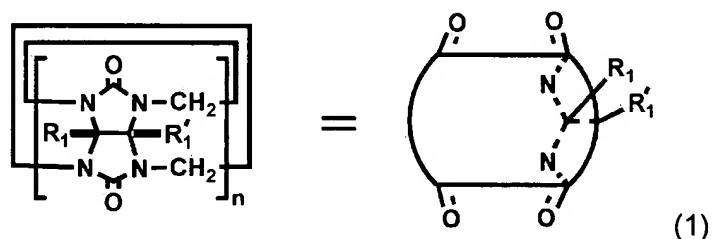


Amendments to the Claims:

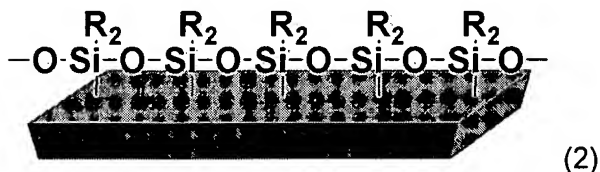
This listing of claims will replace all prior versions, and listings, of claims in the application:

What is claimed is:

1. (Original) A cucurbituril derivative-bonded solid substrate in which a cucurbituril derivative of Formula 1 below is covalently bonded to a modified solid substrate of Formula 2 below:



wherein n is an integer of 4 to 20, and R1 and R1' are each independently an alkenyloxy group with an unsaturated bond end and a substituted or unsubstituted alkyl moiety of C₁-C₂₀, a carboxyalkylsulfinyloxy group with a substituted or unsubstituted alkyl moiety of C₁-C₂₀, a carboxyalkyloxy group with a substituted or unsubstituted alkyl moiety of C₂-C₈, an aminoalkyloxy group with a substituted or unsubstituted alkyl moiety of C₂-C₈, or a hydroxyalkyloxy group with a substituted or unsubstituted alkyl moiety of C₂-C₈, and

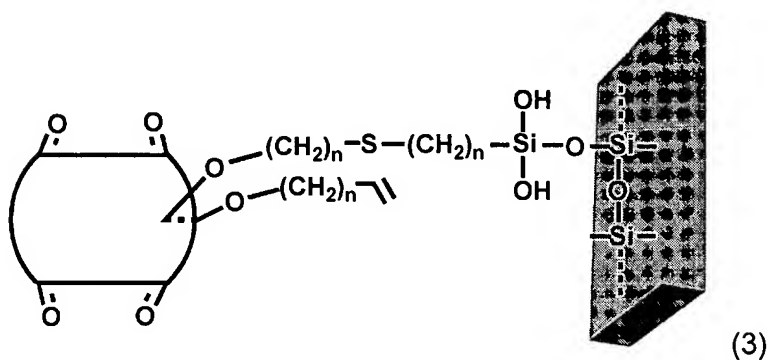


wherein R₂ is an alkyl group of C₁-C₁₀ with an end functional group selected from thiol, amine, epoxy, isocyan, and isothiocyan.

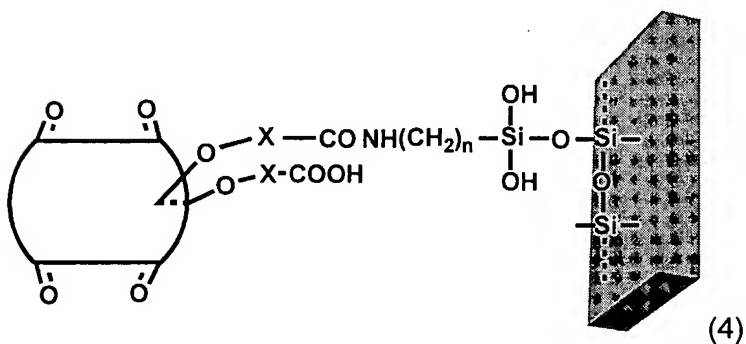
2. (Original) The cucurbituril derivative-bonded solid substrate of claim 1, wherein the solid substrate is a glass, a silicon wafer, an indium tin

oxide (ITO) glass, an aluminum oxide substrate, or a titanium dioxide substrate.

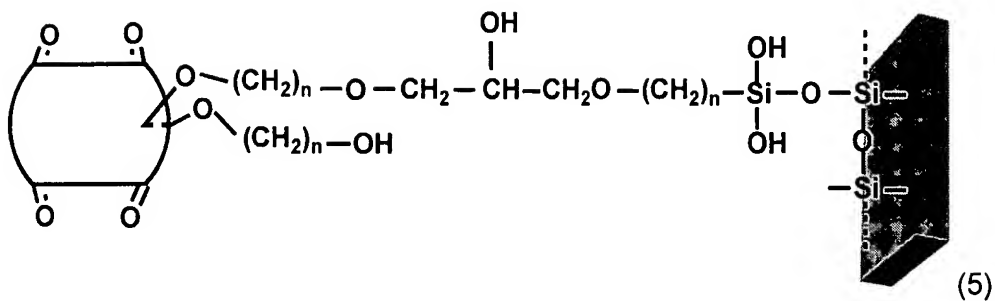
3. (Original) The cucurbituril derivative-bonded solid substrate of claim 1, which is one selected from substrates represented by Formulae 3 through 6:



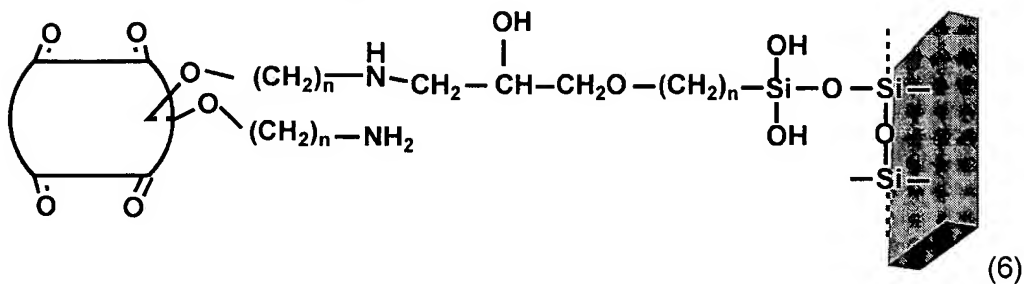
wherein each n is independently an integer of 1 to 20;



wherein n is an integer of 1 to 20 and X is a dialkylsulfide group with a substituted or unsubstituted alkyl moiety of C_1 - C_{20} or a substituted or unsubstituted alkyl group of C_1 - C_{20} ;

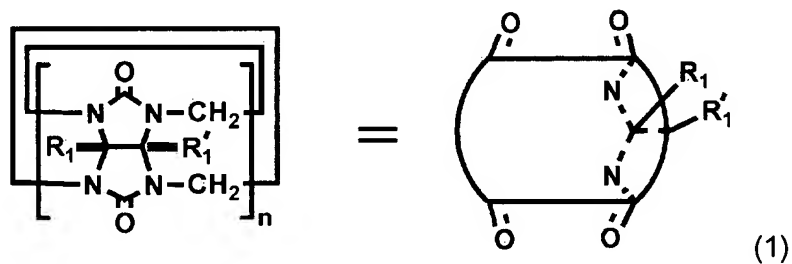


wherein n is an integer of 1 to 20; and



wherein n is an integer of 1 to 20.

4. (Original) A cucurbituril derivative-bonded solid substrate in which a cucurbituril derivative of Formula 1 below is covalently bonded to a modified solid substrate of Formula 7 below:



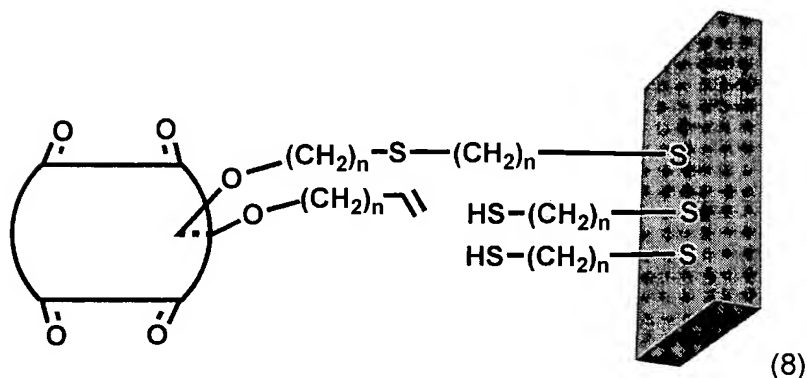
wherein n and R1 are as defined in claim 1, and



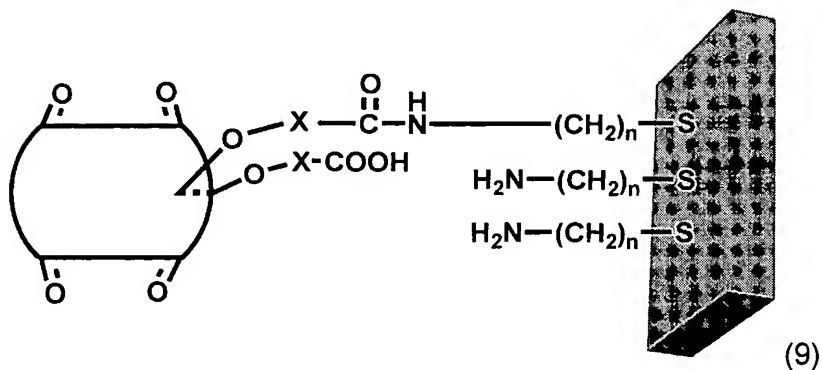
wherein R3 is an alkyl group of C₁-C₁₀ with an end functional group selected from thiol, amine, epoxy, isocyan, and isothiocyan.

5. (Original) The cucurbituril derivative-bonded solid substrate of claim 4, wherein the solid substrate is a substrate made of gold, silver, platinum, or copper.

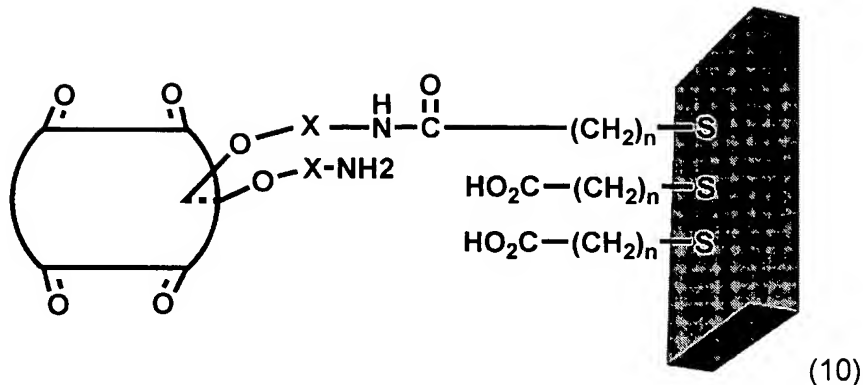
6. (Original) The cucurbituril derivative-bonded solid substrate of claim 4, which is one selected from substrates represented by Formulae 8 through 11:



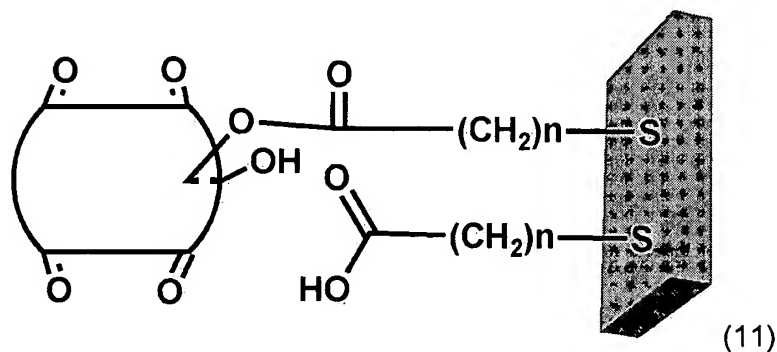
wherein each n is independently an integer of 1 to 20;



wherein each n is independently an integer of 1 to 20 and X is a dialkylsulfide group with a substituted or unsubstituted alkyl moiety of C₁-C₂₀ or a substituted or unsubstituted alkyl group of C₁-C₂₀;



wherein each n is independently an integer of 1 to 20 and X is a dialkylsulfide group with a substituted or unsubstituted alkyl moiety of C_1 - C_{20} or a substituted or unsubstituted alkyl group of C_1 - C_{20} ; and



wherein each n is independently an integer of 1 to 20.

7. (Currently Amended) A protein chip comprising the cucurbituril derivative-bonded solid substrate of ~~any one of claims 1 through 6~~ claim 1.

8. (Currently Amended) A gene chip comprising the cucurbituril derivative-bonded solid substrate of ~~any one of claims 1 through 6~~ claim 1.

9. (Currently Amended) A sensor for biomaterial assay comprising the cucurbituril derivative-bonded solid substrate of ~~any one of claims 1 through 6~~ claim 1.